

Study of Landslide Disaster in Aceh Tamiang Area of Nanggroe Aceh Darussalam Province, Indonesia

Sofyan Rachman and Harry Pramudito (Indonesia)

Key words: Risk management

SUMMARY

ABSTRACT

The Flash floods and landslides apparently continues. After the landslide in Bohorok, Pacet, and Aceh Tamiang, One accusation is an underlying cause catastrophic environmental damage, especially depletion of forests. This also reinforces the notion that the catastrophic flash floods and landslides is no longer as common natural disaster events (natural disaster), but as a natural disaster due to human actions (man made disaster).

Studies conducted by using primary and secondary data about the condition of the surface (land use, Soil Types and morphology) and subsurface (rock types and geological structure) and rainfall, with the purpose of estimating the area of landslides and floods, The tool that used are: Devices such as a compass geological field surveys, geological hammer, Rool, meter and GPS (Global Position System) as well as computer equipment and software Arc-Info / GIS.

Based on the analysis of the factors triggering landslides on the Map Slopes, Geological map, Map Lithology and map vegetation of the area of Aceh Tamiang especially the District Bandar Pusaka, District Tamiang Hulu and the District Tenggulun divided into 5 zones range of areas prone to earth movement / landslides, Zona Prone 1 (high), with slope slope <50% elevation of 50-100%, lithology clay stone, ground motion that is very complex movements of the joint land slides, avalanches and gelinciran, Prone Zone 2 (high), with an area of 20% , 30-50% slope, lithology clay stone, ground motion glide usually areas with low sedimentation, Prone Zone 3 (moderate), with an area of 10% and 15-30% slope, sandstone lithology, soil movement in the form of gelinciran, Prone Zone 4 (low), with an area of 20% and 15-5% slope sandstone lithology, Prone Zone 5 (very low), with an area of 10%, 0-5% slope. lithology sandstones, and can be divided into three zones range of

Study of Landslide Disaster in Aceh Tamiang Area of Nanggroe Aceh Darussalam Province, Indonesia (9607)
Sofyan Rachman and Harry Pramudito (Indonesia)

FIG Congress 2018

Embracing our smart world where the continents connect: enhancing the geospatial maturity of societies
Istanbul, Turkey, May 6–11, 2018

flood-prone areas, Zone Puddles 1 (high), situated at a height of contour of 25m, with the water level \pm 8m located close to rivers and settlements, Zona Puddles 2 (moderate), situated at an altitude 50m contour, with the water level \pm 2m is located close to the river and population, Puddles Zone 3 (low), condition at a height of 50m contour, with the water level is \pm 2m away by rivers and settlements.

Keywords: Arc-Info software / GIS, Land Use, GPS, Puddle Zone, man made disaster, Compass Geology, natural disaster

Study of Landslide Disaster in Aceh Tamiang Area of Nanggroe Aceh Darussalam Province, Indonesia (9607)
Sofyan Rachman and Harry Pramudito (Indonesia)

FIG Congress 2018

Embracing our smart world where the continents connect: enhancing the geospatial maturity of societies
Istanbul, Turkey, May 6–11, 2018